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## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/673,994Source: 91/09Date Processed by STIC: 2/13/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
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- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
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FOR CRF SUBMISSION OUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

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Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (<a href="http://www.uspto.gov/ebc/efs/downloads/documents.htm">http://www.uspto.gov/ebc/efs/downloads/documents.htm</a>, EFS Submission User Manual ePAVE)
- 2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
- 3. Hand Carry directly to:
  - U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
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- 4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

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ERROR DETECTED	SUGGESTED CORRECTION SERIAL NUMBER: 09./673,994
ATTN: NEW RULES CASES	: Please disregard english "Alpha" headers, which were inserted by Pto Software
1Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
2Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.
3Misaligned Amino Numbering	The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
4Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
5Variable Length	Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220> <223> section that some may be missing.
6Patentin 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
7Skipped Sequences (OLD RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:  (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  This sequence is intentionally skipped
	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
8Skipped Sequences (NEW RULES)	Sequence(s) missing. If Intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000
9Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing.  Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.  In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
10Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220><223> section is required when <213> response is Unknown or is Artificial Sequence
11Use of <220>	Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
Patentin 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
13Misuse of n	n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.

AMC/MH - Biotechnology Systems Branch - 08/21/2001



PCT09

RAW SEQUENCE LISTING

DATE: 02/13/2002

PATENT APPLICATION: US/09/673,994

TIME: 07:45:38

Input Set : A:\B08017197.txt

Output Set: N:\CRF3\02132002\1673994.raw

Does Not Comply Corrected Diskette Needed

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120

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660

pp 1-2, 4-6

3 <110> APPLICANT: Chen, Yuqing E.

4 Tamura, Koichi

5 Horiuchi, Masatsugu

Dzau, Victor J.

- 8 <120> TITLE OF INVENTION: CNRE Binding Factors and Uses Thereof
- 10 <130> FILE REFERENCE: B0801/7197/ERG/KA
- 12 <140> CURRENT APPLICATION NUMBER: US 09/673994
- 13 <141> CURRENT FILING DATE: 2000-10-24
- 15 <150> PRIOR APPLICATION NUMBER: US 60/082,997
- 16 <151> PRIOR FILING DATE: 1998-04-24
- 18 <150> PRIOR APPLICATION NUMBER: PCT/US99/08502
- 19 <151> PRIOR FILING DATE: 1999-04-23
- 21 <160> NUMBER OF SEQ ID NOS: 23

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23 <170> SOFTWARE: FastSEQ for Windows Version 3.0

## ERRORED SEQUENCES.

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332 geoegetgga ggecateetg egetgttege etteaggeae gaetteetag ttegtatatg 1200 RAW SEQUENCE LISTING DATE: 02/13/2002 PATENT APPLICATION: US/09/673,994 TIME: 07:45:38

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/673,994 DATE: 02/13/2002 TIME: 07:45:38

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Output Set: N:\CRF3\02132002\1673994.raw

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424       305       310       315       320         425       Ser Glu Val Glu Glu Pro Ala Arg Gly Pro Gly Glu Ala Arg Gly Glu 426       325       330       335       335         427       Arg Pro Gly Pro Ala Cys Gln Leu Cys Gly Gly Gly Pro Thr Gly Glu Gly 428       340       345       350       350         429       Pro Cys Cys Gly Ala Gly Ala Gly Gly Arg Gly Gly Gly Pro Pro Leu Pro Pro 360       365       365         431       Arg Leu Leu Tyr Ser Cys Arg Leu Cys Ala Phe Val Ser His Tyr Ser		Gly		Ser	Asp	Asp	Glu		Glv	Glv	Glv	Ara		Leu	Ser	Ala	Glu
425 Ser Glu Val Glu Glu Pro Ala Arg Gly Pro Gly Glu Ala Arg Gly Glu 426 426 Arg Pro Gly Pro Ala Cys Gln Leu Cys Gly Gly Pro Thr Gly Glu Gly 427 427 Arg Pro Gly Pro Ala Cys Gln Leu Cys Gly Gly Pro Thr Gly Glu Gly 428 428 740 Pro Cys Cys Gly Ala Gly Gly Arg Gly Gly Gly Pro Pro Leu Pro Pro 430 429 Arg Leu Leu Tyr Ser Cys Arg Leu Cys Ala Phe Val Ser His Tyr Ser									1	1	1						
426       325       330       335         427       Arg Pro Gly Pro Ala Cys Gln Leu Cys Gly Gly Gly Pro Thr Gly Glu Gly 428       340       345       350         429       Pro Cys Cys Gly Ala Gly Gly Ala Gly Gly Gly Gly Gly Pro Pro Leu Pro Pro 430       355       360       365         431       Arg Leu Leu Tyr Ser Cys Arg Leu Cys Ala Phe Val Ser His Tyr Ser	425	Ser	Glu	Val	Glu	Glu		Ala	Arq	Gly	Pro		Glu	Ala	Arg	Gly	
428       340       345       350         429       Pro Cys Cys Gly Ala Gly Gly Gly Gly Gly Gly Pro Pro Leu Pro Pro 430       355       360       365         431       Arg Leu Leu Tyr Ser Cys Arg Leu Cys Ala Phe Val Ser His Tyr Ser									,	-		-			,		
428       340       345       350         429       Pro Cys Cys Gly Ala Gly Gly Gly Gly Gly Gly Pro Pro Leu Pro Pro 430       355       360       365         431       Arg Leu Leu Tyr Ser Cys Arg Leu Cys Ala Phe Val Ser His Tyr Ser	427	Arg	Pro	Gly	Pro	Ala	Cys	Gln	Leu	Cys	Gly	Gly	Pro	Thr	Gly	Glu	Gly
430 355 360 365 431 Arg Leu Leu Tyr Ser Cys Arg Leu Cys Ala Phe Val Ser His Tyr Ser	428	_		-			-			_	-	-			_		-
430 355 360 365 431 Arg Leu Leu Tyr Ser Cys Arg Leu Cys Ala Phe Val Ser His Tyr Ser	429	Pro	Cys	Cys	Gly	Ala	Gly	Gly	Arg	Gly	Gly	Gly	Pro	Pro	Leu	Pro	Pro
	430				_		_	_		-		_					
432 370 375 380		Arg	Leu	Leu	Tyr	Ser	Cys	Arg	Leu	Cys	Ala	Phe	Val	Ser	His	Tyr	Ser
	432		370					375					380				

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/673,994

DATE: 02/13/2002 TIME: 07:45:38

Input Set : A:\B08017197.txt

Output Set: N:\CRF3\02132002\1673994.raw

					_			•	•			•								sec	
	433 434	Ser 385	His	Leu	Lys	Arg	His 390	Met	Gln		His	Ser 395	_	Glu	Lys	Pro	Phe 400		+	sei Tu	a
E>	435		Cvs	Glv	Ara	Cvs	Pro	Tyr			Ala	_		Val	Asn	Leu			<del>)</del> ^_	$\mathcal{L}(\mathcal{U})$	m
	436	5	-1-	1	5	405		-1-			410	<b></b>				415			′ '		
	437	Arq	His	Thr	Arq		His	Thr	Glv	Glu		Pro	Tvr	Ara	Cvs		His				•
	438				420				1	425			-1-	5	430						
	439	Cys	Pro	Phe	Ala	Cvs	Ser	Ser	Leu		Asn	Leu	Arg	Ara	His	Gln	Arq				
	440	-		435					440	2			,	445			,				
	441	Thr	His	Thr	Gly	Pro	Pro	Thr	Pro	Pro	Cvs	Pro	Thr	Cvs	Glv	Phe	Arg				
	442		450		•			455			- 2	_	460	- 4	- 1		·,· J	•			
	443	Cys	Cys	Ala	Pro	Arq	Pro	Thr	Arq	Pro	Pro	Ser	Pro	Thr	Glu	Gln	Glu				
	444	465	•			_	470		,			475					480				
	445	Gly	Thr	Met	Pro	Arq	Arg	Ser	Glu	Asn	Ala	Leu	Ile	Leu	Pro	Asp	Leu				
	446	•				485	_				490					495					
	447	Ser	Leu	His	Val	Pro	Pro	Gly	Gly	Ala	Ser	Phe	Leu	Pro	Asp	Cys	Gly				
	448				500			_		505					510	-	-				
	449	Gln	Leu	Arq	Gly	Glu	Gly	Glu	Ser	Leu	Cvs	Gly	Thr	Glv	Ser	Glu	Pro				
	450			515	_		_		520		-	_		525							
	451	Leu	Pro	Glu	Leu	Leu	Phe	Pro	Trp	Thr	Cvs	Arq	Glv	Cvs	Glv	Gln	Glu				
	452		530					535			-1-		540								
	453	Leu	Glu	Glu	Gĺy	Glu	Gly	Ser	Arq	Leu	Glv	Ala	Ala	Met	Cvs	Glv	Arq				
	454	545			. •		550		,		. *	555			4	-	560				
	455	Cys	Met	Arq	Gly	Glu	Ala	Gly	Gly	Val	Ala	Thr	Gly	Gly	Pro	Gln	Gly				
	456	_		-	-	565		-	-		570		-	•		575	-				
	457	Pro	Gly	Asp	Lys	Gly	Phe	Ala	Cys	Ser	Leu	Cys	Pro	Phe	Ala	Thr	His				
	458		_	_	580	_			-	585		-			590						
	459	Tyr	Pro	Asn	His	Leu	Ala	Arg	His	Met	Lys	Thr	His	Ser	Gly	Glu	Lys				
	460			595					600					605							
	461	Pro	Phe	Arg	Cys	Ala	Arg	Cys	Pro	Tyr	Ala	Ser	Ala	His	Leu	Asp	Asn				
	462		610					615					620								
	463	Leu	Lys	Arg	His	Gln	Arg	Val	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys		:		
	464	625				•	630		•			635					640				
	465	Pro	Leu	Cys	Pro	Tyr	Ala	Cys	Gly	Asn	Leu	Ala	Asn	Leu	Lys	Arg	His				
	466					645			•		650					655					
	467	Gly	Arg	Ile	His	Ser	Gly	Asp	Lys	Pro	Phe	Arg	Cys	Ser	Leu	Cys	Asn				
	468				660					665					670						
	469	Tyr	Ser	Cys	Asn	Gln	Ser	Met	Asn	Leu	Lys	Arg	His	Met	Leu	Arg	His				
	470			675					680					685							
	471	Thr	Gly	Glu	Lys	Pro	Phe	Arg	Cys	Ala	Thr	Cys	Ala	Tyr	Thr	Thr	Gly				
	472		690					695					700								
	473	His	Trp	Asp	Asn	Tyr	Lys	Arg	His	Gln	Lys	Val	His	Gly	His	Gly	Gly				
	474	705					710					715					720				
	475	Ala	Gly	Gly	Pro	Gly	Leu	Ser	Ala	Pro	Glu	Gly	$\mathtt{Trp}$	Ala	Pro		His				
	476					725					730					735					
	477	Ser	Pro	Pro		Val	Ĺeu	Ser	Thr	Arg	Gly	Pro	Ala	Ala		Gly	Ala	•			
	478				740					745					750						
	479	Thr	Gly		Arg	Ala	Leu	His		Asp	Ser	Pro									
	480			755					760												
	400	401A	000		110	^															

482 <210> SEQ ID'NO: 9

RAW SEQUENCE LISTING DATE: 02/13/2002 PATENT APPLICATION: US/09/673,994 TIME: 07:45:38

Input Set : A:\B08017197.txt

Output Set: N:\CRF3\02132002\1673994.raw

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     484 <212> TYPE: DNA
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     487 <400> SEOUENCE: 9
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                                                                                 60
         attggttggc tagcagcgca tcacaatcac ttcctggtca tgctgcgact gcgctccggt
     489
                                                                                120
     490
         tgtacagccc atgaactacg catcccgtgt tgctctgcgg tggcggaagc ggaagcgggt
                                                                                180
     491
         acggaggtac cagctggtct tcggaggggg gtagggggct ccatgaatgg aagcggcggc
                                                                                240
     492
         ggcggcggga gcgacctgag ctggattccg gggccggggc aggggctgcc cagggcccgc
                                                                                300
     493
         acceptgtate geggegette geggatecta agageaagga cegacegecag gegegaacté
                                                                                360
     494
         ggaggggcgg ggccgggagg cctcgggccg gaggcgcgtc gggctggagc cggtcacqat
                                                                                420
     495
         gccccgaagg aagcaaagcc atccacagcc cgtgaaatgc gagggggtca aaggtcaggg
                                                                                480
     496
         540
     497
         gtggaggggg actcctcagg gttaggggcg gatgatctgg gatcttcgct ccttaccaga
                                                                                600
     498
         gtattaaagg aacctgaggg tcatcgagta cgggaagtgc agttcacaac agctggctcc
                                                                                660
     499
         ttggttcgga ttatgggtac tgcttgggag ggagattcca caagcaccct cccctcttta
                                                                                720
     500
         gtggatactg aagatteett egacgaaggt eetggggeee tggtgttgga gagegatttg
                                                                                780
     501
         ctactaggcc aagatctgga gtttgaagag gaagaggaag aggatgaagg tgacqgccac
                                                                                840
     502
         aacgaccagc tcatgggctt tgagagagac tctgaaggag actctcaggg ggccagacct
                                                                                900
     503
         ggactteect atgggetgag tgacgacgag tetgggggeg geegegeact aagtgeggag
                                                                                960
     504
         agtgaagttg aggaaccagc caggggtcca ggggaggcca ggggtgagag gccaggccca
                                                                              1020
         gcctgtcagc tgtgtggggg gccgacaggt gaggggccgt gttgtggggc aggagggcgg
     505
                                                                              1080
     506
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                                                                              1140
     507
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                                                                              1200
E--> 508
         cgctgtggcc gctgcccata cgcntcagcc cagttcgtca acctgacgcg acatacccgc
                                                                              1260
     509
         acceatactg gegagaagee ctacegttgt ecceactgee eetttgeetg cageageetg
                                                                              1320
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                                                                              1380
         tgtggctttc gatgctgtgc tccacgacca acccggcctc ccagtcccac agagcaggag
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     513
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                                                                              1560
     514
         ttgtgtggaa ctggatccga accactgcca gagctactgt tcccttggac ctgccggggc
                                                                              1620
     515
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                                                                              1740
     517
         ggetttgeet gtagtttatg eccetttgee acteactace ecaaceaect ggeteggeae
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     518
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                                                                              1860
     519
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     520
         cocctetgtc cgtatgcctg tggcaacctg gccaacctca agcgtcatgg tcgcatccac
                                                                              1980
     521
         tctggtgaca aaccttttcg gtgtagcctt tgcaactaca gctgcaacca gagtatgaac
                                                                              2040
    522
         ctcaaacgtc atatgctgcg acacacgggc gagaagccct tccgctgtgc cacctgcgcc
                                                                              2100
         tataccacag gccactggga caactacaag cgtcatcaga aggtgcatgg ccatggtgga
                                                                              2160
         geaggaggge etqqtetete tqcccetqaq qqctqqqcc caceteataq cccacectet
                                                                              2220
    525
         gttttgagca ctcggggtcc agcagccctg ggtgctactg gtagcagggc tcttcattca
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    526
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    607 <211> LENGTH: 581
    608 <212> TYPE: DNA
    609 <213> ORGANISM: Mus musculus
    611 <400> SEOUENCE: 15
         ggcctttagt ctgaaaaagt gttgcttgaa agtgtacaac agagagcggg tgcaagcggc
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```

RAW SEQUENCE LISTING DATE: 02/13/2002

PATENT APPLICATION: US/09/673,994 TIME: 07:45:38

Input Set : A:\B08017197.txt .

Output Set: N:\CRF3\02132002\1673994.raw

			_	• •	-				
	613	taggggtcac	agageegeea	ataaaaaaga	atgtccttaa	ataaagtgtt	cacagagtaa	120	
	614			_	acaacagagc			180	
	615	_	_		agaggacagc			240	
	616				gggctgagga			300	
	617				caaggacaaa			360	
	618				cggttgacca			420	
	619		-		cctccgtgga	_		480	19
E>	620				tgtttcgggg			540	stem 9
	621	acgtcatgtt	gtcacaccct	gtaccatccc	cagaagtgtc	t		581	
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	626	<213> ORGAN	ISM: Mus mus	sculus					
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	630	tgcaagcggc	taggggtcac	agagccgcca	ataaaaaaga	atgtccttaa	ataaagtgtt	120	
	631	cacagagtaa	aaatcagaac	taccagtcct	tecetecaac	acaacagagc	acaggcacag :	180	
	632	aaccgatagt	cgatgagccc	aaggagagta	aggaggctta	agaggacagc	agagcctccc	240	
	633	aggctgccgc	gtggggggg	tggggggccc	tctttgtaat	gggctgagga	aagccaccca	300	
	634	gccccctgca	cacctcatac	ccactgctaa	ggctaaagga	caaggacaaa	actcagtctc	360	
	635	gggtccaagg	ggctcagaaa	aacagttcca	catggggcag	ggtccggttg	aaccactagt	420	~
	636	tccctcttgg	gccttcttt	tgttcactgt	tggccggtgt	cttcagcccc	ctccgtggac	480	1. 9
E>	637	agtgcctcct	ccagtttcct	cttgccactc	ttctgnctga	agtctactgt	gtttcggggn	540	Num!
	638	tgaagcaaat	gatgatgcac	ttcatqttqt	tcacaccctq	taccat		586	

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/673,994

DATE: 02/13/2002 TIME: 07:45:39

Input Set : A:\B08017197.txt

Output Set: N:\CRF3\02132002\1673994.raw

L:314 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:7 M:340 Repeated in SeqNo=7 L:435 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:8

L:508 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:9 L:620 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:15 L:637 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:16